

# NAVAIR Overview

---

*Presented To:*

*Presented By:*





# NAVAIR History



1911 – First Navy aircraft purchased from the Glenn Curtiss company of Hammondsport, NY

1921 – Bureau of Aeronautics was created. Prior to that, the ownership of all aircraft was distributed across the Navy

At the start of World War II, the Navy had 1,800 combat aircraft.  
By the end of the war, the Navy had 41,000 total aircraft.

1959 – BUAER merged with Bureau of Ordnance (BUORD) to form Bureau of Naval Weapons (BUWEPS)



1966 – Naval Air Systems Command (NAVAIRSYSCOM) established

1985 – NAVAIR now reports directly to Chief of Naval Operations (CNO)

1990's – NAVAIRSYSCOM moves to Patuxent River Naval Air Station





# NAVAIR's Role in Naval Aviation

- Develop, acquire and support aircraft, weapons and related systems which can be operated and sustained at sea
- Provide analysis and decision support for cost / schedule / performance trades and investment decisions
- Increase Navy and Marine Corps capability, readiness and affordability in a joint / coalition environment



*Our capabilities support the unique mission of naval aviation*





# NAVAIR Strategic Imperatives

## Align existing resources to better support today's Readiness

Fixing existing issues | Predictive vice reactive | Tactical and strategic



## Increase Speed of Products to the Fleet

Accept more risk – Well understood, balanced, managed risk acceptance

Change program team staffing model (smaller and more empowered)

Significantly reduce “derived requirements” – *Across the Board!*

Resource rapid response capabilities to maximum capacity (e.g. AIRWorks)

***Ready to Fight Tonight.  
Capabilities and Capacity to  
Win the Future.***





# CNO and CMC Alignment



*"We have got to move faster. We have got to learn faster. We've got to adjust our acquisition systems to adopt that technology faster... I need an acquisition system that will allow for quick technology refreshes to continuously improve performance, rather than relying on massive game changers every 20 years"*

**– CNO John Richardson**

*"We must continue to improve our readiness for today's fight, while at the same time ensuring we remain relevant for the conflicts we know will come in the future."*

**– CMC Robert Neller**

*"Message from the Commandant"*





# Strategy Alignment

## CNO

### Strengthen Naval Power

Ready to operate and fight, and advance information warfare capabilities



## NAVAIR

### Increase Readiness, Affordability and Speed

Ready to fight tonight – Capabilities and capacity to win the future



## CMC

### Readiness

Expand readiness efforts, and experiment and test new concepts and capabilities

### High Velocity Learning at All Levels

Accelerate learning, innovation and creativity, and expand learning-centered technologies



### Learning, Knowledge Management

Encourage creativity, innovation, hands-on learning through collaboration tools



### Training and Simulation

Ensure business models and operating concepts are relevant and adaptive, and focus on innovation and learning

### Strengthen our Navy Team for the Future

Accelerate Sailor 2025 efforts and strengthen leadership development programs



### Agile, Adaptive Workforce

Smaller, flexible and empowered teams that take well understood, balanced risks, and develop leaders at all levels



### People

Ensure our workforce is the right size with the right skill sets, and focus on new-age training/education continuum

### Expand/Strengthen Network of Partners

Integration with Joint Services and increase interaction with industry, non-traditional partners



### Mature Government / Industry Partnerships

Robust government, industry and service partnerships, and FMS engagement



### Integration with Naval and Joint Force

Shape our force to operate as part of the Joint Force to leverage capabilities of all branches

Source: A Design for Maintaining Maritime Superiority Released 5 Jan 2016

Source: USMC FRAGO: Advance to Contact Released 19 Jan 2016



# NAVAIR Snapshot

## Full Life-Cycle Management

Requests,  
Risks from Fleet,  
OPNAV

Materiel  
Solution  
Analysis

Technology  
Maturation &  
Risk Reduction

Engineering and  
Manufacturing  
Development

Production &  
Deployment

Operations &  
Support



**27,298**  
Civilians

**1,654**  
Military

**8,875**  
Contractors

FY16 Workforce Numbers

## Products



Tactical Aircraft



Air ASW, Assault & Special Mission



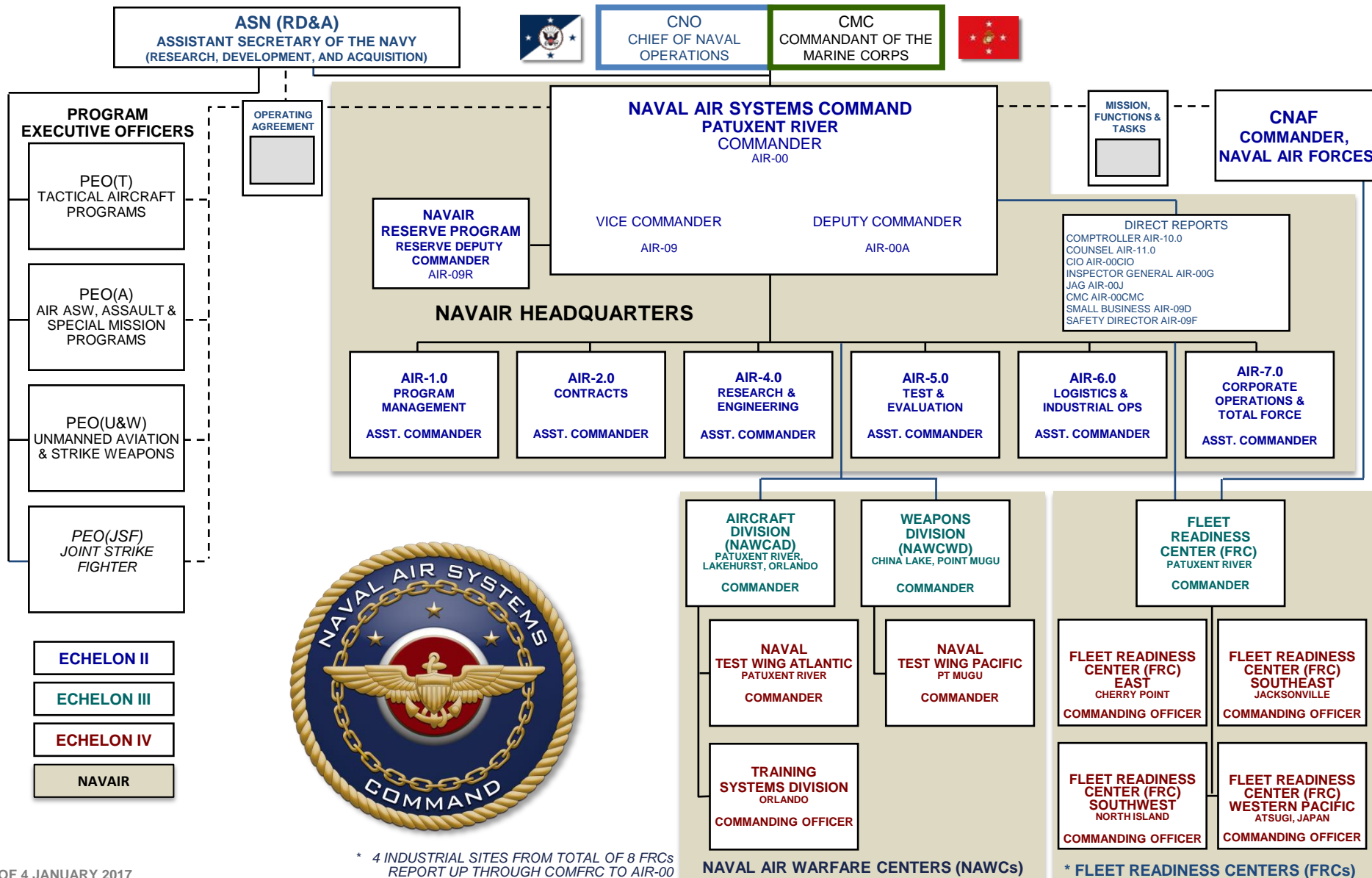
Unmanned Aircraft & Strike Weapons



Common Systems, Mission Systems,  
Training, ALRE



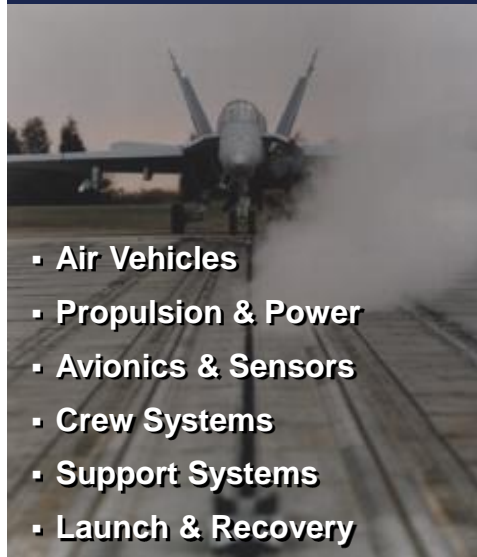
# NAVAIR ORGANIZATION





# Naval Air Warfare Center Aircraft Division

## Aircraft



## Training



## Mission

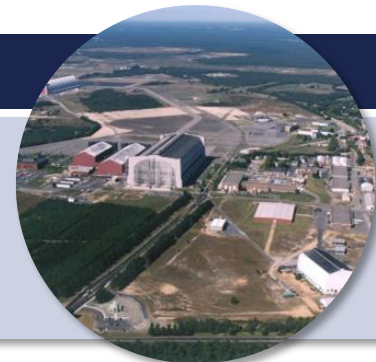
The Navy's principal RDT&E, engineering and fleet support activity for naval aircraft, engines, avionics, support systems and ship/shore/air integration.



# NAWCAD Key Resources

## Lakehurst, New Jersey

- 123 Structures totaling 1,057,831 sq. ft. on 7,400 acres
- Aircraft Platform Interface Lab
- EMALS Test Site
- Steam Catapult Complex
- Runway Arrested Landing Site
- Jet Car track Site
- Jet Blast Deflector Site
- Carrier Analysis Facility
- Prototype & Manufacturing Facility



## Patuxent River, Maryland

- 665 Structures on 13,812 acres, with 10 Hangars, 5 Runways
- 2,700 sq. miles Patuxent Special Use Airspace to 85,000 ft.
- Access to more than 50,000 sq. miles of additional offshore air and sea space
- Anechoic Chamber, Becker Lab, ACETEF, SAIL, APF, P&P
- Test Wing Atlantic, USNTPS, Webster Field
- Controlled RF environment
- Over-water Approaches Instrumentation & Fabrication

## St. Inigoes, Maryland

- 60 Buildings on 852 acres with 2 Active Runways
- Shipboard ATC/Combat ID
- Ship/Shore Communications
- Controlled RF environment
- Over-water Approaches
- Aircraft tracking opportunities
- Pier and shoreline access



## Orlando, Florida

- 40.5 acres and co-located with Team Orlando
- Navy – NSA, NAWCTSD
- Army – PEO-STRI, RDECOM
- USAF – AFAMS
- Coast Guard
- USMC – PMTRASYS



# Naval Air Warfare Center Weapons Division

## Mission

The Naval Air Warfare Center Weapons Division (NAWCWD) is an organization within NAVAIR dedicated to maintaining a center of excellence in weapons development for the Department of the Navy

**Research and Development**

**Ranges and Facilities to Test and Evaluate Navy Systems**

**In-service Support/System Phase-out**

**Missiles/Freefall Weapons**

**Weapon System Integration**

**Electronic Warfare Systems**

**Land Range/Sea Range**

**Non-Lethal Weapons**



China Lake, CA



Point Mugu, CA





# NAVAIR Ranges

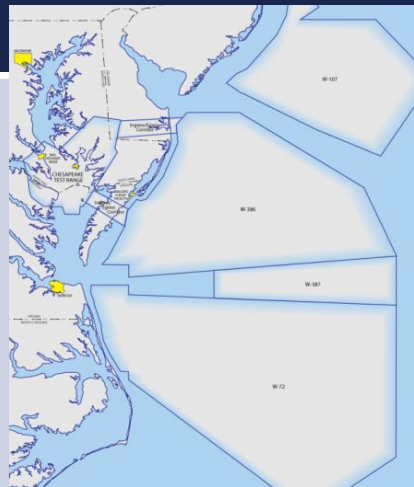


## NAWCWD Ranges

- **R2508 Complex Airspace**
  - Approximately 20,000 square miles
  - 20,000 feet (FL200) to unlimited altitude
- **China Lake Land Ranges**
  - Approximately 1.1 Million Acres
  - Surface to unlimited altitude
- **IR-200 Low Level route connecting Sea and Land Ranges**
- **Point Mugu Sea Range**
  - Warning Areas 36,000 square miles; expandable to 220,000 square miles
  - Surface to unlimited altitude
  - Extensive area for supersonic testing
  - Unique geography for Directed Energy Testing

## Atlantic Test Ranges

- **Chesapeake Test Range**
  - Approximately 2,700 square miles controlled airspace
  - Surface to 85,000 feet
- **Offshore Ranges**
  - Access to 50,000 square miles in the mid-Atlantic Warning Area
  - Surface to unlimited altitude





# COMFRC Mission

Commander, Fleet Readiness Centers (COMFRC) delivers effective and efficient flight-line readiness through a globally managed, responsive and integrated sustainment system.





# Fleet Readiness Center Locations





# Naval Aviation Maintenance

## Three Levels of Aircraft Maintenance

### On-Aircraft Maintenance



#### Level 1 – Organizational Level

Squadron Level

Servicing

Replace Parts



### Off-Aircraft Maintenance

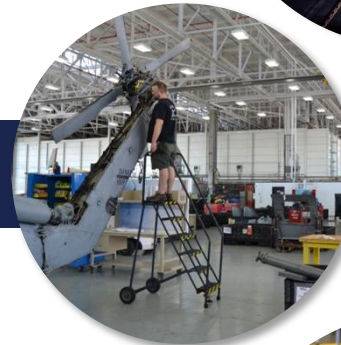


#### Level 2 – Intermediate Level (Level 2)

Components / Engines

Scheduled maintenance

In-service Repair



### Off-Aircraft Maintenance



#### Depot Level (Level 3)

Scheduled maintenance

Modifications

In-Service Repair

Field Team In-Service Repair

Manufacture



\*BRAC 2005 Initiative: Single Off-Aircraft Maintenance Organization (COMFRC)



# NAVAIR Products

**Fixed Wing**



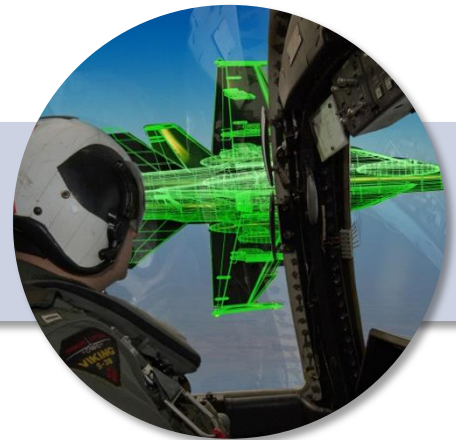
**Rotorcraft**



**Weapons**



**Aviation Systems**



**Unmanned Air Systems**





# PEO(T) Programs

## PMW/A-101

Multifunctional Information Distribution System

## PMA-231

E-2 / C-2

## PMA-234

Airborne Electronic Attack Systems & EA-6B Prowler

## PMA-251

Aircraft Launch and Recovery Equipment

## PMA-257

AV-8B Harrier

## PMA-259

Air-to-Air Missile Systems

## PMA-272

Advanced Tactical Aircraft Protection Systems

## PMA-265

F/A-18 / EA-18G

## PMA-298

Air Warfare Mission Area

## PMA-213

Naval Air Traffic Management Systems

## PMA-273

Naval Undergraduate Flight Training Systems





# PEO(A) Programs

## PMA-261

Heavy Lift Helicopters



## PMA-264

Air ASW Systems



## PMA-275

V-22 Osprey



## PMA-276

Light / Attack Helicopters



## PMA-299

Multi-Mission Helicopters



## PMA-290

Maritime Patrol & Reconnaissance Aircraft



## PMA-271

Airborne Strategic Command, Control & Communications



## PMA-207

Commercial Transport & Support



## PMA-274

Presidential / Executive Lift Helicopters





# PEO(U&W) Programs

## PMA-281

Strike Planning and Execution Systems



## PMA-201

Precision Strike Weapons



## PMA-263

Small Tactical UAS



## PMA-208

Navy Aerial Targets and Decoys



## PMA-262

Persistent Maritime UAS



## PMA-242

Direct and Time Sensitive Strike



## PMA-266

Multi-Mission Tactical UAS



## PMA-268

Unmanned Carrier Aviation



## PMA-280

Tomahawk Weapons System





# AIR-1.0 Programs

## PMA-260

Aviation Support Equipment



## PMA-205

Aviation Training Systems



## PMA-226

Specialized and Proven Aircraft



## PMA-202

Aircrew Systems



## PMA-209

Air Combat Electronics



## PMW/A-170

Communication and GPS Navigation



### Program Management Competency/Functional Lead

Policy / Process / Tools Stewardship across AIR-1.0 and PEO (A, T, U&W, JSF) Programs



# Delivering Results



## Actual FY16 Deliveries

**136 New Aircraft**

**15,108 Missiles / Bombs**

**129\* Unmanned Air Vehicles (UAV)**

**6 UAV Ground Systems**

**41 Training Devices**

**494 Aircraft Repairs** (Includes Commercial/Inter-Service)

**1,777 Engine Repairs** (Includes Commercial/Inter-Service)

**68,893 Component Repairs**

**4,506 Support Equipment Repairs**

\* Includes Program of Record and Non-PoR UAVs for USMC (PMA-263)



# Naval Aviation Enterprise

## Mission

Sustain required current readiness and advance future warfighting capabilities at best possible cost.

NAVAIR is part of the Naval Aviation Enterprise (NAE)

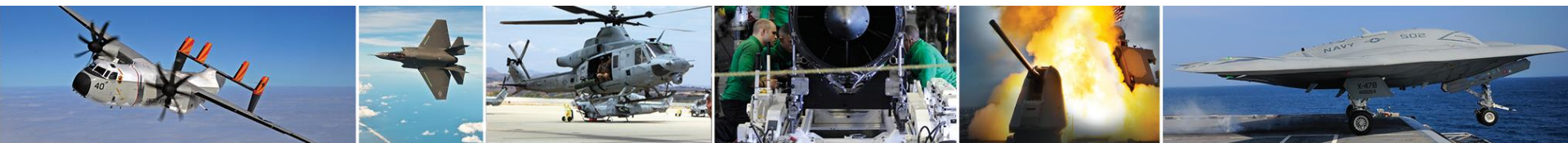
Led by Commander, Naval Air Forces; Marine Corps Deputy Commandant for Aviation; Commander, NAVAIR

Includes all naval aviation communities

Facilitates collaboration, information sharing and process improvement

Helps stakeholders understand costs, readiness degraders and resources

Ensures naval aviation is aligned, from the warfighter at sea or on the ground to the providers in government and industry



[nae@navy.mil](mailto:nae@navy.mil)

[www.nae.navy.mil](http://www.nae.navy.mil)



# Connect with NAVAIR

## Website

[www.navair.navy.mil](http://www.navair.navy.mil)



## Fleet Requests

[www.navair.navy.mil/index.cfm?fuseaction=home.contact\\_us](http://www.navair.navy.mil/index.cfm?fuseaction=home.contact_us)



## Facebook

[www.facebook.com/navair](http://www.facebook.com/navair)



## Naval Aviation News

[navalaviationnews.navylive.dodlive.mil](http://navalaviationnews.navylive.dodlive.mil)



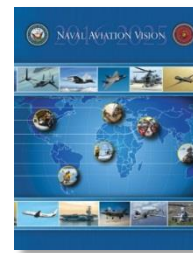
## Twitter

[www.twitter.com/navairnews](http://www.twitter.com/navairnews)



## Naval Aviation Vision

[www.nae.navy.mil](http://www.nae.navy.mil)



## YouTube

[www.youtube.com/navairsyscom](http://www.youtube.com/navairsyscom)



## NAVAIR Overview

<https://youtu.be/sKpyg5CRr8>

